

Aviation News

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MAY 22, 1944



New Navy Secretary Confers with Nimitz: Admiral Chester W. Nimitz (left), Commander-in-Chief, discusses Pacific strategy with James V. Forrestal, then Undersecretary of the Navy, at a base in the Central Pacific, during an inspection tour shortly after the capture of Kwajalein.

ACCA Cites Advantages of Services' Air Competition

Fairchild's Ward tells Woodrum Committee many planes developed by separate units would not have been produced under unified command....Page 7

Northwest Tax Ruling Vital Problem Facing Airlines

Serious complications seen in Supreme Court decision upholding right of Minnesota to levy on all of company's planes based in that state....Page 35

Plane Plants Revise Schedules to Meet Draft Needs

Easing of rules to permit retention of 26-29 group—source of much supervisory personnel—for at least six months is bright spot in picture...Page 28

AAF Engineers Play Vital Role in Tactical Warfare

Cut-off procedure planned in Washington and used in Central Burma actually got first test on small scale in Lae-Salamaua campaign....Page 19

Survey Shows Few Investment Trusts Hold Air Stocks

Portfolios of 25 major funds have only 10 participations in any one airline and only six in any one aircraft property.....Page 44

Parts Producers Body Expands to Meet Post-War Needs

About 170 of AAPM's 400 members went into manufacture of plane parts at outbreak of war and over half plan to continue in field.....Page 16



Crash truck . . . ladies' size

Scooters, "manned" by women, rush to fire at air fields and quickly snuff out flames with carbon dioxide gas from Kidde extinguishers. These outfit fire engines are highly maneuverable, easily operated by women. And they're built—to match the fast fire-killing effect of Kidde extinguishers.

Kidde extinguishers are used by air fields on a wide variety of mobile equipment. They're carried on full-size emergency trucks, two-wheeled trailers, jeeps, motorcycles, Kidde hand and wheeled portable extinguishers stand ready to nip smaller fires.

If you are planning fire protection for an airport—or for aircraft—Kidde's broad experience in aviation fire fighting will be valuable to you. Our engineers are at your service... just drop us a line!



WALTER KIDDE & COMPANY, INC., 140 CEDAR STREET, NEW YORK 6, N. Y.

THE AVIATION NEWS

Washington Observer

AIRCRAFT CONTRACTS—With aircraft production running nearly 3,000 units a month, the question has arisen as to when a definite downward trend in aircraft contracts may be expected. The best answer from competent authorities seems to be that there will be no falling off until the success of the invasion is determined beyond a shadow of a doubt and even then any change probably will be in type rather than in overall output.

CHANGES NOW IN EFFECT—Already well publicized has been a downward trend in transport types, with emphasis shifting to tactical types and heavier aircraft. The Aircraft War Production Council, West Coast, does not expect any definite downward trend in aircraft requirements or contracts until the European phase of the war has been won and the Pacific war is approaching its finish. It would be a mistake to interpret the vast armament production or even the actual launching of the invasion as indicating that the war has been won or the need for airplanes has lessened.

UNITS MAY GO DOWN—Although the number of aircraft produced may be smaller in months to come, the weight of airplanes produced undoubtedly will increase. Schedules laid down as the basis of strategic and practical needs do not call for any substantial change in production in terms of weight in the near future except that resulting from the emphasis on heavier craft. Recent outbreaks in some plants have been caused to permit concentration on new models, usually heavier than current types.

EXPLORATORY CONFERENCE—Statements made by Lord Beaverbrook regarding the post-war international aviation situation have caused some concern on Capitol Hill since Beaverbrook left the definite impression that some fairly definite commitments were made by our representatives at the London exploratory talks. This was contrary to general belief in Washington and in aviation circles generally, which was that no policy was established.

A FIRM STAND—The feeling is growing in Congress that the United States must take a firm stand in retaining our aviation rights and many members are not at all inclined to yield much to other nations. Some estimates have it that about 75 percent of post-war air traffic will originate in the United States and that the place of our airlines in the international aviation picture must be commensurate with that figure.

WEST COAST MANPOWER—The manpower situation in the West Coast aircraft industry is less stringent than it has been for the last two years, despite draft spreads. This is due to steadily increasing production efficiency, constantly better effectiveness in manpower utilization, the better results from subcontractors and greater stability of schedules. The industry, as a matter of fact, would be at about an even theoretical balance if plants which are reducing payrolls could send the workers to other factories which need them, but experience has shown that workers do not readily transfer from one factory to another. At the moment, Douglas is short at its El Segundo plant and North American and Ryan both need workers,

New belly tank features Douglas Havoc, Army A-20 attack bomber.



In the "Mendel-Talkie", developed in the Motorola Laboratories, Permelex Acoustical Devices are fully demonstrating their ability to improve the efficiency and intelligibility of speech communication. These same Permelex echinermans, which today ensure enhancement of laboratory performance in battle equipment, will be available for hundreds of peaceful applications.

BUY WAR BONDS FOR VICTORY

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FIGURE 1. PARACHUTES OF PERMANENT MAGNET DYNAMIC TRANSDUCERS

May 22, 1944

Washington Observer	14
Midline News Service	14
Private Filing	15
Air War	15
Forecast	20
Aircraft Production	24
Transport	27
Passenger	44
Refueling	44

U. S. Army Air Forces Corps, 9, 7, 9, 13, 15
U. S. Navy

National Advisory Committee for Aeronautics	2
Shell Oil Co.	5
Firestone Tire and Rubber Co.	12
Frankford Aviation Corp.	5
Western Air Lines	5
Northwest Airlines	12

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[illegible]

Ampro Steel Inc.	16
Enpro Corporation Inc.	26
Dynalco Inc.	15
Edwards & Kelcey Inc.	26
McDonough Steel Co.	42
Aluminum Alloy Inc.	45
Permacore Corporation	4
Isosolv Metals Co.	24
Acme Aluminum Co.	25
Dell Oil Company	—
Acme Vacuum Oil Co. Inc.	28
Rockingham Seafoods Inc.	37
Golden State Brewing Co., The	44
Gordon Inc.	29

TRANSCONTINENTAL RECORDS—A few weeks ago when TWA's Lockheed "Comet-4" made its record-breaking coast-to-coast flight, it was pretty generally understood in the industry that there would be no more such operations for the duration. Consequently, there were some mixed emotions in Washington and elsewhere in the industry when the two P-51 "Mustangs" streaked to a new record. The question naturally arose as to whether Republic with its P-47 "Thunderbolt" and Lockheed with its "Lightning" and perhaps some others wanted to take their airplanes into the second, third or fourth category. It is rather odd in view of the recent refusal of such requests. Would the Army permit a "Banshee" to try for a transcontinental record?

DUTCH PREFER U. S. PLANES: Dutch officials here deny that KLM, Royal Dutch Air Lines, and its affiliate, KNILM, contemplate any switch from U. S. to British-built transports with resumption of world-wide commercial services. They have always preferred American planes, mainly Douglas, and now display keen interest in both the DC-4 and the Lockheed Constellation for routes which include trans-Atlantic and trans-Pacific. A strong network is contemplated throughout the Orient and in the Dutch East Indies, which probably will demand full-width transport from the U. S. and other nations. KLM's 1946-47 air mail service is expected to start on each Dutch Pacific postman as it is reestablished from the Japanese.

Although the future of nitrate and sports flying are frequently described as optimistically overcast, one promising phase of post-war aviation is the subject of few newspaper stories. That is the proposed use of aircraft by industrial and business firms for transportation of executives and salesmen. One reason for lack of publicity, of course, is the desire on the part of such company which plans to use a fleet of planes and professional pilots that its competitors might get in on the act as long as possible. The number of corporate-type planes which will be sold in the first two years after commercial production begins will be far above most estimates, Washington officials believe.

NEW GERMAN PLANES—The Nazi propagandists have been hinting broadly that their flyers are equipped with new combat planes.

which will go into action against the revisionists. These reports are not taken very seriously by our top brasses, who do not believe the enemy has anything revolutionary as tap. Germany is said to have a jet job, but it is not expected to reach combat proportions for some time. The German paper, according to press dispatches, have carried photographs of a new but cumbersome, slow double-deck hydroplane in service in Scandinavia waters. Its overall length was given as about 120 feet and the height about 15 feet, with no performance details, naturally.

CANADIAN PATIENCE—Canada decided to cede the U. S. for airport expenditures along the northern strip; roads could not be built for 90 percent for 50 miles empty of a road of one to this country for other reasons throughout the world. Actually, before the war Canada had already built airfields and installed equipment in line with a modest program. When the U. S. began making plans to ferry aircraft to Alaska, and needed new facilities, she was told by the Canadians to go ahead and build them and they could be turned down afterward. The airfield was under way but rapid expansion, however, that Canada realized her own equipment would be inadequate for the future and offered to buy and keep the U. S. facilities.

The Munitions Assignment Board and the CAB are working out an allotment schedule for 35 or more twin-engine transports soon to be released by the Army. Diplomatic circles indicate that Mexico is seeking about 25 Boeing 547-D, but her officials fear that these may be assigned to Alaska, instead, and the smaller Lockheed Electra substituted.

TREATIES AND SERVICE.—Most of the discussions now give the impression that good air service after the war will be possible only between those countries having reciprocal treaties. Actually, the advantages of air transportation probably will be utilized even by nations or airlines which may have only a few well selected routes. The airlines of the United States, though not permitted to fly to England or the British Isles, could land in Belgium—about 400 passengers on the French or Dutch coast or in Ireland, and the passenger could change to a London plane in a few minutes, with little trouble. Similarly, a treaty by a small country such as Belgium, with every other air power, would permit it to carry passengers to and from even two or three major foreign capitals; would give it greatly access to the rest of the world.



SOMETHING BIG—like lifting an ELEPHANT

Now, strange feature of the American Some-thing Flying Elephants in the neighborhood of total war plants...

At night they are moved from ten to twelve thousand feet up—the better to clip your burners wings, Top! With the mooring cable, a barge balloon weighs about 1,500 pounds. It takes a lot of LIFT—12,000 cubic feet of HYDROGEN—40 do this job!

Scientists at the "University of Petroleum," Shell's research laboratories, got hydrogen as a by-product when they discovered how to make smokeless powder components from petroleum gases—hydrogen to lift these flying Elephants!

Thus—one more outstanding contribution to America's war effort from Shell.

Shell was first, too, to supply American military aviation with a super fuel—100-octane gasoline—giving our planes new speed, flying range, and tactical

advantage. Later Shell discoveries vastly increased both the power and production of aviation gasoline.

Today, more Shell 100-octane aviation fuel is supplied to aircraft engine manufacturers, for critical test and run-in purposes, than any other brand.

And now, each day, Shell produces more than enough to fuel a bombing mission of 2,400 planes from England over Germany.

Frightened airport operators will find Shell's war-time popularity a profitably protective asset.



**FINER FUELS
FOR THE AGE OF FLIGHT**

ACCASpokesman Cites Advantages Of Armed Forces' Air Competition

Ward tells Woodrum Committee many planes developed by separate units would not have been produced under unified command.

By WILLIAM K. GEE

The aviation industry is fairly convinced that there have been very definite advantages in the separate armed services which through competition have developed aircraft that otherwise would never have been available. J. Carlisle Ward, Jr., president of Fairchild Corp., told the Woodrum Post-War Military Policy Committee last week. He was spokesman for the Aeronautical Chamber of Commerce of America.

Ward's testimony followed that of Arthurian L. Gates, assistant secretary of the Navy for air, and Vice Admiral J. S. McCain, deputy chief of Naval Operations (air), each of whom outlined the role of naval aviation and urged that the Navy's air arm retain an integral part of the Navy.

Presented by Ward—the ACCA statement of policy (AVIATION NEWS, May 1 and May 8) was presented to the Woodrum Committee by Ward, who followed that by personal testimony drawn from his experience with the services and in official missions to Britain and France. Member of a group of production experts sent to France to advise on aircraft engine production, Ward said he was told by naval officers of that country and British that procurement advantages went to the service having the heaviest representation on the central procurement agency.

Asked by Rep. Miller (R. Conn.) if he believed the country could have competition leading to improved aircraft between the armed services, under a unified command, Ward countered that in his service in France and as a member of the War Production Board in Britain in 1942 he found that no other

country had a naval air arm that is any way compared with that of the United States. Ward said it possibly could be done under an overriding political department of the services only providing that the services retain procurement responsibilities for technical equipment. He pointed out that the American aviation industry is still building up the British air arm with American naval planes.

Acca Peace-time Preparation—Ward pleaded for a peacetime

preparation for war—with a resolute teaching of history to show that the United States had fought a major war during each generation—that would integrate the nation's industrial preparation with its military preparation. He asked financing of stockpiles of strategic materials, funds for war planning by industry as well as for the armed services, a military strength policy that would implement America's voice in enforcing international agreements, retention of specialized government-owned facilities as surplus emergency armaments, continuation of critical technical developments and research projects after the war in spite of war contract cancellations, and encouragement of a strong civil air force and Merchant Marine as vital military reserves and instruments of future military policy.

Assistant Secretary Gates expressed emphatic opposition to



LANDING STRIPS FOR INVASION:

A small part of the material piling up in England which Allied troops will use as the invasion is shown with a crane lifting one of the easy rolls of British-made Clinton landing mats which will be used to establish airfields and roads on soft ground where our troops take over Nazi-held Europe.

Comptroller-General Tangle Slows Termination Bill in House

Prompt action, which was predicted in lower chamber after Senate passage of S.1718, fails to materialize; surplus property disposal program moves ahead in administrative agencies.

It has been two weeks since the Murray contract termination bill received favorable Senate action, and the "prompt action" predicted for the House has failed to materialize.

Actually, the House appears to be badly entangled in the troublesome question of what to do with the comptroller-general when contractors are being terminated.

House's Solution.—The Senate disposed of this feature of the bill by simply preventing the General Accounting Office from auditing and reviewing all contracts before settlement, but giving that office authority to review payments after settlement to determine whether they were made in accordance with agreements and whether there was evidence of fraud.

Persons close to Comptroller-General Lindsay Warren secretly report that the General Accounting Office had a "wholly unrealistic" view of the job given him by S.1718 as passed by the Senate, and still is seeking substitution of the May 1941 (H.R. 3032) which

gives him the right to make pre-audits.

Debate Problem.—The House Judiciary Committee, which was given S.1718 and to which will be referred whatever bill is devised by the Culture Committee, now has a very delicate problem on its hands and there is little question but that within the committee walls some spectacular pulling and tugging is now doing on. Committee members leaning toward S.1718 would like to forget how much popularity the comptroller-general enjoys in the House but they are finding this impossible. Moreover, the Chairman of the House Military Affairs Committee and a sizable bloc of the committee itself are strong supporters of Mr. Warren and the Judiciary Committee members will not relish throwing their bill out on the floor where a hostile element of unknown strength may be waiting for it.

One thing is now clear: when House leaders hoped that S.1718 would be law by June 1, they are now leveling their sights at July 1.



WRIGHT FIELD TESTS RUDDER:

Lead-filled convex bars, each weighing several pounds, are distributed over various plane surfaces to provide accurate stress and strain tests in the Static Testing Laboratory at Wright Field, headquarters of AAF Materiel Command. Photo shows workmen preparing a rudder surface for test.

The latter seems to be geared more realistically to present performance.

Disposal Feature Clarified.—Meanwhile, the surplus property disposal picture became much clearer, although here the action was confined solely to the administrative agencies. There seems little question but that Congress will give W.W. L. Clayton, Surplus War Property administrator, plenty of time to gain experience in property disposal before attempting to tinker disposal legislation to fit his need. This was recommended in the Bush-Blandford report, and as the SWPA is now operating there is no doubt but that this experience is being quickly achieved. One of the disposal agencies—Treasury Procurement—was now disposing of property at the rate of \$120,000,000 a month.

OPA officials have not yet announced this, although they are preparing a pricing order setting ceiling for Government-owned surplus materials. Behind this order is OPA's fear that procurement and disposal officials may attempt to make a good showing by getting high prices for scarce goods, thus creating a dangerously inflationary situation.

Inflation Factors.—While aircraft surpluses at the moment have no tremendous popular appeal, such surplus items and cars and trucks and other automobiles will be eagerly sought when notice of disposal is made, and OPA believes that, unless stringent pricing policies are applied, the trend toward inflation will be uncontrollable.

It is understood that the surplus property pricing order will hit some 230 maximum pricing regulations which will affect government sales but among the items now scheduled for price control exemption there is only one—aviation gasoline—which will possibly affect the industry.

Exemptions.—According to those who have seen the proposed regulation, there is a provision that among the items exempt from price control are any used items otherwise subject to the federal maximum price regulation "except used airplanes powered with a single engine of not over 500 hp."

From Defense Plant Corp. came disposal developments when it was announced that 4,439 surplus used machine tools valued at \$39,000,000 had been sold. This sale, it was reported, accounted for about three-fourths of all machine tools declared surplus.

NACA Shows New Research Laboratory

Committee meet in Cleveland for conference on airplane's technical progress during war.

Members of the National Advisory Committee for Aeronautics, including high ranking officers of the Army and Navy air arms and top executives of the aircraft industry, discussed wartime progress and future development of aircraft at the NACA's aircraft engine research laboratory at Cleveland Municipal Airport last week. A similar meeting will be held with West Coast industry executives June 6.

The visitors inspected the altitude wind tunnel in which tests are made at wind velocities up to 500 mph, to develop aircraft power plants for efficient operation under conditions of subzero temperature and air density existing in the sub-atmosphere, the long wind tunnel in which some conditions are artificially created to study means of preventing and removing ice formation, the flight research division where flight tests are conducted to obtain fundamental information on engine performance, the fuels and lubricants laboratory and the engine research building.

NACA is also investigating highly secret jet propulsion systems. Extensive research has been conducted in the use of water, injected directly into the engine cylinder with the fuel, an idea already in limited use.

Navy Cuts Orders On Fighter Planes

Reduction authorized largely so that their losses are only two-thirds as large in early campaigns.

A sharp pointing up of the superiority of our Naval aviation is the order reducing the over-all production of fighter planes for the Navy, due largely to the fact that losses have been only two-thirds as large as they were estimated earlier.

As relative air superiority over the enemy arises, the attrition rate has been dropping. In addition, there have been relatively few fighter planes involved in combat operations accidents.

Quota Set at 37,000.—The reduction will enable Naval air



NEW NACA ENGINE LABORATORY:

Members of the National Advisory Committee for Aeronautics, ranking Army and Navy officers and aircraft production executives inspected the new wind tunnel at the NACA aircraft engine research laboratory during an aeronautical policy meeting in Cleveland last week. Pictured here is an interior view showing the guide vanes in the altitude wind tunnel and an exterior view.



strength to stay within the maximum overall goal of Navy planes fixed last year as to force necessary to accomplish the Navy's war tasks," the Navy said.

Previously, the Navy had reported that 37,000 planes of all types for this year would be necessary, of which from 34,000 to 12,000 were to be produced this year. The proportion of the new reduction was not disclosed.

Excess Eliminated.—In most instances the order reduction means simply the elimination of over-quota. For example, the quota for a hypothetical plant might be 100 fighter planes for a given month. If the actual plant turned out 150 planes that month, the Navy would accept all of them. The cut-back will eliminate this over-quota and stop on quota previously set.

Draft Deferment Group Enlarged

Two new element agencies have been added to the inter-agency committee, which has jurisdiction over recommending to Selective Service the activities and establishments in which key registrants in the 18-25 year old group may be considered for occupational deferment.

One of these in the Review Committee on Deferment of Government Employees and the other in the Office of Scientific Research and Development, which may recommend occupational deferment of civilian scientists. This committee also covers the Office of Defense Transportation which includes air transport and ferry personnel of co-belligerents certified by the DOT.

Oil Unaffected by Heat or Cold Developed in Coast Research Plant

Some lubricants tested at California laboratory even thicken when warmed and thin when cooled; production seen as big aid to planes in areas of widely varying temperatures.

By SCHOLER RANGS

Oil that will thicken when heated, thin when cooled, or even freeze temperature changed, is in prospect and should prove to be a tremendous asset to the aviation industry.

Still a laboratory curiosity at the Redwood, Calif., headquarters of California Research Corp., subsidiary of Standard Oil Co. of California, it should solve wartime and post-war problems of air lines operating under temperatures varying rapidly from 100 degrees to minus 30 Fahrenheit.

Cost and efficiency—efficiency on production cost, lubrication efficiency, and durability are factors still to be determined as research progresses.

Contributions of Russian and Standinger equations by a research chemist is reported to have led to development of the new oil. The chemist, it is said, discovered accidentally that a substance suspended in a liquid affects its viscosity only slightly. That at Standinger made great chain-like materials dissolved in a liquid change the liquid's viscosity drastically.

But, those who know what there is in a rift between Kaiser and Douglas Aircraft Corp. are not likely to be surprised.

Now it works—Physical application of the principles of the equation was effected by adding in oil numerous substances of greater viscosity than the oil itself and in the form of super-finely divided particles individually composed of only a few thousand molecules.

Suspended in the oil, the particles do not affect viscosity of the oil under normal temperatures. As the oil is heated, they break down to molecule size and in solution add greatly to the oil's viscosity. When the oil cools, the molecules return to their original sludgy identity as particles suspended in the oil, and the oil resumes its initial low viscosity. Choice of the foreign materials and their varying concentrations is expected to facilitate the "tailoring" of oil to meet varying demands in industry.

Air Conditioning—More immediate is the prospect of air condi-

tioning airplane cockpit and stewardess lounge & control areas. Today they often make as many as five, and even more, trips to the front of the cabin per two-hour flight from San Francisco to Los Angeles, and each time sleep to the floor to adjust the cabin air control, each time grossing the adjustment that will reduce 70-degree temperature to the cabin. Rapid weather changes in flight make it a difficult task, mostly automatic control at the airport.

Kaiser-Hughes—The completion of HX-1, the Hughes-Kaiser plant flying boat, definitely is up to Howard Hughes. Henry J. Kaiser is withdrawing from the project. He did so when it became evident that only one would be built and no government orders placed for the large numbers he had hoped to build.

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Hughes. They are said to be "clearer than ever," in constant association, and working together on a new project. That it could be a big plane project, possibly a giant metal flying boat larger than HX-1 and that could be built in a Kaiser shipyard with private eastern capital raised by the magnetic Kaiser-Women's group, is not far from the truth. It is attested by the fact that the engineering group Bechtel-McCone-Panama, interested in projects that interest Kaiser, wants to be in the transoceanic airline business and expected to apply for a California-Hawaii route certificate. HX-M-P has neither planes nor personnel to operate an airline.

PUBLICITY JOB—More than one head of a West Coast aircraft factory is promising to court the public with feverish intensity after the war. And they're wondering whether their wartime organized public relations staffs will be ready to do the job. They are to be "too close to the apron strings" to do a hang-up "objective" job when peace comes. At least, that is the wonder that is being planted in their minds by outside public relations counsel who now think the airplane is here to stay. They cite the success of Consolidated Vultee Aircraft Corp.'s public relations, handled by the outside firm of Hill & Knowlton. Either signed or being considered is a working agreement between Bruza Co., headed by energetic Ted Bruza, Los Angeles public relations counsel widely experienced in handling such stress situations, and North American Aviation.

Lee & Loeb, Los Angeles and San Francisco public relations counsel, now West Coast outlet for Hill & Knowlton, Aero-Chief of Commerce publicity, will not neglect any opportunities to grab an aircraft account. A partner in the firm is John Lee, manager of the West Coast's Aircraft War Production Council. His threat of invasion undoubtedly will sharpen the production efforts of company publicity departments and public relations directors.

Brantiff Anniversary

Brantiff Airways last week marked the tenth year of a small service since AM 9 between Chicago and Dallas. During June, 1934, the first full month of operation, the line reported 14,470 lbs. of mail, 10,000 passengers, compared with 190,034-852 pound miles over the entire system in April, 1944.

FEDERAL DIGEST

WLB Orders Bendix Compensation Bonus

Directs payment to \$5000 in seven New Jersey plans for wage loss due to ban on premium pay for Sunday work; summary of work in U. S. and war agencies.

By MARY PAULINE PERKY

Bendix Aviation Corp. was directed by the National War Labor Board to pay retroactive swing shift bonuses to about 6,000 workers in seven New Jersey plants to compensate them for losses in earnings due to the operation of an Executive order which prohibits premium pay for Sunday work as such.

The Board decreed the payment of a bonus equal to 8.5 percent of weekly earnings to each employee for the third period from Oct. 3, 1943, to May 3, 1943. During that period those workers were on a shift of six days' work with two days off. A bonus of 15 percent for women workers for the same period also was ordered. Women worked a swing shift of five days on and one day off.

Discrimination—The company discontinued the swing shift arrangement on May 3, 1943, and all employees went on a regular shift of six days a week. Employees are represented by the Aircraft Workers Union of New Jersey, an unaffiliated organization.

NWLB directed wage increases averaging \$30 an hour for approximately 5,000 production and maintenance workers at the Memphis plant of Fisher-Morris Aircraft Division of General Motors Corp.

Negotiation Ordered—The Board ordered the company and UAW-CIO, bargaining agent for employees, to negotiate an wage rate at the plant, as the straight time hourly payroll for workers in the UAW unit will equal \$3,310. This amount represents the cost of applying rates originally ordered by the Board for the same plant in the Southern California Aircraft Industry, and subsequently applied to aircraft plants in the mid-continent area.

A strike call of the, an hour or so, was issued by the UAW unit, as is provided in the Board's order. The strike was called for the 10th day of the month, with automatic compliance with the 10th day of the month.

More Douglas

Washington authorities announce that 14 Douglas DC-3's will be returned to the domestic airline shortly by the War Department. Among the total domestic fleet to 314 planes. Chances are good that additional equipment will be forthcoming later this year.

regular pay for their distribution is needed. Improving conditions in Alaska Maritime Air Corps, the Department of the Interior is planning to use the surplus to improve the conditions in Alaska.

War Department Committee will meet soon to discuss the possibility of using surplus aircraft to replace the aircraft of the Air Corps and the Army Air Corps.

Office of the Assistant Secretary of War will meet soon to discuss the possibility of using surplus aircraft to replace the aircraft of the Air Corps and the Army Air Corps.

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Surplus Plane Body Hears 2 More Groups

Pages subcommittee gain views of association spokesmen and Civil Aeronautics Joint Legislative Committee.

The House Surplus Plane Advisory Subcommittee last week heard William P. MacCrea, president of the National Aeronautics Association and the Civil Aviation Joint Legislative Committee.

Both groups have taken any stand on the surplus matter, and MacCrea's discussions were largely exploratory.

Proceedings—The mechanism for handling any policy, decided on by the Surplus War Proper Administration after the House subcommittee will make its report, were set up last week when Regulation No. 1 was issued by Administrator William P. Clayton.

Both will operate under policy and surplus equipment disposition under the Reconstruction Finance Corp. and its subsidiaries in this country and under the Foreign Economic Administration overseas.

Both will operate under policy set out by the SWPA on the basis of the War Department recommendations.

Other equipment vital in aircraft operations—communications and electronic devices—will be considered by the War Department and the RFC and the WPA.

Tighter Policies—The regulations became effective May 18 and applies at present only to surplus aircraft of the Army, Navy, and Marine Corps. Where it affects Reconstruction Finance Corp., the RFC is empowered to set through any of its subsidiary companies.

War Department, Civil Aeronautics Administration, and Reconstruction Finance Corp., the RFC is empowered to set through any of its subsidiary companies.

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Hudson Makes New Helldiver Wings

Disclosure that the company is producing folding wings for an improved and more powerful Curtiss-Wright "Hellcat" has been made by Hudson Motor Car Co., which is moving the new wings on a mile-long assembly line.

The new Helldiver has a more powerful Wright Cyclone engine, a new type of propeller, and a four-bladed hollow steel propeller.

Beech Solves Surplus Problem With Own Distributing Subsidiary

Material Distributors, Inc., aircraft company's new unit, reports 323 war plants on its client list after only five months of operations.

Beech Aircraft Corp.'s novel surplus distributing subsidiary has put 323 war plants on its client list in the five months of its existence, and on a typical day checked by AVIATION NEWS was able to find 60 items out of 85 requested by 25 plants. These items were in surplus stocks of other companies.

The Beech subsidiary—Material Distributors, Inc.—was organized in December to meet Beech's need for sale of surplus inventory and to help other companies move surplus stocks. It is a clearing house developed by L. W. Noble, Beech's conservation director, as the result of two years' experience in moving surplus and surplus from Beech's plant in Wichita.

Warehousing Plan—The experience gained by this subsidiary company prompts the success of the warehousing plan announced last week through which surplus stocks of aircraft companies will be re-distributed through industrial warehouses. The effect of this new plan on the Beech sub-

sidiary is still to be determined, but it is expected that the operation of the company will fill a vital need.

The surplus distributing company was organized when other sources of re-distributing Beech surplus products appeared to have reached a limit under normal conditions. Noble devised the plan for the new company and presented it to the company.

New Business Set Up—Officials of the Beech Co. readily agreed to Noble's plan and a new type of aircraft business was set up. Material Distributors, Inc., was organized with an authorized capital of \$500,000, of which \$100,000 has been raised for cash by Beech Aircraft Corp., the sole stockholder. All officers and directors of the company are connected with Beech. Noble is president and general manager, and Walter R. Beech (president of the parent company) is vice-president. Other officers and directors are Elbert Naugle, Vern Laine, Mrs. G. A. Beech, John Galt and R. K. Beech.

Material Distributors was a success from the start. In his early contacts with other companies—prospective buyers of Beech materials—Noble found each of the manufacturers also was troubled with surpluses and miscellaneous materials.

\$100,000 Issue Listed—At the end of the first five months of operation, Material Distributors had more than 100,000 items listed, some in great quantities, lying idle in various plants across the country, but beginning to move. The company now lists 323 contractors of war products among its clients. During April, the company received 402 requests for 3,562 items.

"We try to locate the materials as close as possible to the prospective buyer," Noble said. "When a request for an item comes in, we use our 100,000 items as a guide to see if it is available. It might be found in small quantities at various plants. The company then queries the owner and, when it finds the prospective buyer."

Fees Charged—When materials are shipped by one of the firms associated with Material Distributors, a copy of the bill of lading is sent to the Beech company. A fee of 10 percent on sales up to \$99,000 and 3 percent up to \$100,000 is charged for the service. "Or we are open to any special contract an offer might make," Noble said. Some holders of surplus materials have been selling at considerably below market in order to clear their inventories. "We try to put them at least a fair price," Noble added.

Material Distributors owns no material stock of its own.

The company has set up a complete and mutually available stock index inventory, which is growing to be unequalled as a finding service for requirements of wood-bench purchasers as well as a convenient and aggressive disposal service for holders of unwanted materials.

Reporting Problem—The major problem in reflecting surplus into channels useful to war production," Noble said, "was that of reporting to the purchasing departments of war contractors the types and quantities of surplus materials available and their locations. The more aggressive contractors used portable lists or catalogs of their own plants and solicited the lists through the industry. Purchasing departments, however, found it impracticable to use the lists for other than official

shortage items, because of the necessity of consulting a large number of different lists to fulfill their requirements. Surpluses therefore continued to accumulate.

"The solution to this problem, as evolved by this corporation, was the organization of a master composite inventory of surplus materials. This inventory now lists more than 100,000 items, with quantities and locations of each.

The company has grown so rapidly it now has representatives in each of the AAF procurement districts and will post company men at plants of any manufacturer who so desires.

United Aircraft Net, Salaries Listed

United Aircraft Corp. paid its executives, Eugene S. Wilson, \$78,380 during 1945, the annual report filed with Securities and Exchange Commission shows.

Frederick R. Knechtler, director and chairman, got \$77,600 and Joseph F. McCarthy, director and controller, \$75,390, the total for the eleven officers was \$777,152, not including \$1,322 for retirement-income annuities for two officers.

Salaries and Bonuses—Others other than directors received \$242,949, not including \$9,972 paid for retirement-income annuities. United Aircraft also paid \$279,210 to eleven employees who received more than \$20,000 each, exclusive of \$12,494 paid for retirement-income annuities.

United Aircraft Corp. and its wholly owned subsidiary, United Aircraft Service Corp., reported sales and operating revenues of \$734,012. Operating costs and expenses were \$671,899,507.

Reconversion Costs—Deducting \$6,300,696 for reconversion costs and write-offs from balance of \$67,075,561, there was left a net income balance of \$56,770,865.

Other income added \$2,559,393, bringing total net income to \$59,329,448.

This was subject to deductions of \$173,490 for interest paid Canadian exchange and sundry items, making net income before provision for income and excess profits taxes of \$58,837,385.

Against this sum was charged \$254,023 in income taxes and \$44,329 in excess profits taxes, making a total tax charge of \$47,668,484. Against this was a credit of \$4,107,193 for debt retirement



BELL HELICOPTER FLIES INDOORS:

Floyd W. Carlson, experimental test pilot for Bell Aircraft, is shown at the controls of Bell's helicopter as he put the craft through its paces inside the 65th Experiment Armory in Buffalo, in what is believed to be the first time in this country and the second time in history that such a craft was flown indoors.

credit of \$4,107,193 and post-war refund of subsidiary of \$7,890, reducing tax charge to \$43,561,291. After all deductions, the corporation showed net income of \$15,390,114.44.

Navy Research Gets Excess Air Output

The over-all productive capacity of the country exceeds naval aviation requirements and as much of the excess as possible is being used for experimental work for the future, Rear Admiral D. C. Ramsey, chief of the Bureau of Aeronautics, disclosed in Senate committee hearings on the 1945 naval appropriation bill.

In all, more than \$10,000,000 will be spent during fiscal 1946 in experimental and development work, Ramsey revealed.

Aviation Training Reduced—The sharp reduction coming in training of naval aviators was in a table inserted for the record by Vice Admiral F. J. Horne, vice chief of naval operations, in connection with estimates for pay and allowances. Preliminary is made for 43,312 in fiscal 1946 and only 39,330 in fiscal 1945. Students in CAA War Training Service schools will drop from 8,841 to 426 and in naval flight preparatory schools from 3,393 to 1,390. The lighter-than-air program is being cut from 350 to 28, while the serial navigation train-

ing program is dropped entirely.

On the other hand, an academic overhaul program will be instituted with 3,649 assigned, pre-flight complements will rise slightly from 3,338 to 3,456 and intermediate training will show a comparatively small drop to 8,768 from 8,844. Approximately 3,666 will be kept on reserve duty through the year. Primary training will drop from 8,093 to 5,490. Marine aviation during fiscal 1945 will have 16,000 officers and 163,899 enlisted personnel assigned. More than 10,000 officers and about 34,000 enlisted men will be used in five aircraft wings, six additional groups and 23 air-wing squadrons in the Fleet Marine Force, the hearing revealed.

Timberlake Named Deputy Air Chief

Brig. Gen. Patrick W. Timberlake has replaced Brig. Gen. Edwin S. Perrin as a Deputy Chief of the Air Staff, AAF. General Timberlake has served overseas as commanding general of the 9th Bomber Command and as Chief of Staff of the Mediterranean Air Command in the North African theater of operations. General Perrin was a deputy chief with Brig. Gen. H. R. Vandenberg and Brig. Gen. W. E. Hall as the other deputies. The new assignment has not been announced.



SPEEDS AVIATION GASOLINE OUTPUT:

A blending agent for 100-octane aviation gasoline is made in this section of Shell Oil Co.'s new Wood River, Ill., refinery recently dedicated. The agent, known, results from alkylating propylene and benzene in their 55 high pressure tubes, each 40-ft. high.

Parts Producers Group Expands To Meet Post-War Aviation Needs

About 170 of AAPM's 400 members were auto manufacturers of plane units and accessories at outbreak of war and over half of these plan to stay in field, investigation reveals.

By BLAINE STUBBLEFIELD

Despite the certainty of a slump drop in the aircraft business right after the war, Automotive and Aviation Parts Manufacturers, Inc., 608 Michigan Bldg., Detroit 36, Mich., is planning with the expectation that "some day there will have to be a big aviation parts supply business." The association, which is in process of installing additional personnel to handle the aviation end of its services, is a manufacturers' organization and not a distributors' and dealers' group.

About 170 of AAPM's 400 members, including such names as Thompson Products, Bendix Aviation, Stewart-Warner, went into aviation parts when war production pressure came on, and more than half of them plan to stay. This shift of auto parts producers to aviation caused the association to change its name Feb. 8, from Automotive Parts and Equipment

Manufacturers to its present title. **Shift to Plane Parts**—Of course many of the auto parts makers were interested in tapping over into aviation parts, but mainly they did it because materials to make auto parts were shut off by WPB, and aviation parts got the priorities. The manufacturers are lucky in that the post-war slump in aviation will be more than compensated for by an unprecedented demand for auto parts.

There used to be 25,000,000 cars in this country; 23,000,000 are still on the road. Probably a mere fraction of them will be less than four or possibly six years old by the time delivery of new cars begins. Car production was practically stopped by the beginning of 1943. At the rate of 4,000,000 cars a year, the industry's peak, it would take about six years to replace only the 23,000,000 cars now registered. This will make a big



Frank Krieger

ious market for auto parts, most of which go into new cars. Thus there will be no question of manufacturers' survival through the lean aviation period. Of course most AAPM companies are producing for many industries other than aircraft and automobiles.

Producer 95% of Parts—Frank Krieger, former associate editor of Aviation News, now general manager of AAPM, says that, of the several hundred companies who produce in auto parts in normal times, 400 are members of his group, and that these latter produce about 95 percent of the total output of auto parts.

The great bulk of aviation parts, says Mr. Krieger, are turned out by the same companies which in peacetime are known as automotive parts plants. Furthermore,

many of their aviation products are the same, or of the same design, as those produced for the automobile manufacturer. This is true of such companies as Eaton, Thompson, and Bendix.

Manufacturers' Group—Function of AAPM is to furnish members with quick informative bulletins and services which are for the most part concentrated in the fields of labor and government relations and regulations. When the War Production Board, or the War Relocation Commission, or Office of Price Administration, or Army or Navy issues an order or does something that affects the parts makers, AAPM explains it to all members in a bulletin released on the following day.

Officials of the association, back in 1940, say they asked the Aeronautical Chamber of Commerce to furnish its members with Washington bulletins on aviation, but the Chamber declined to do so. AAPM says it changed its name and went into the aviation field only after it became convinced that no other agency was going to do it.

Questionnaire—At the close of 1943, AAPM analyzed questionnaire replies from its members in an effort to find out what sort of aviation services they would like to have. Of 152 members who replied (many more later came in), 58 said it was 10 to 25 percent of their work was aviation, 30 said 26 percent to 50 percent was aviation, 20 said and the proportion was 51 percent to 75 percent, and 13 said it was 76 percent to 100 percent.

Port Management Courses Offered

At least three universities—Southern California, Texas, and Oklahoma—now offering air planning for the full courses in airport management, CAA Administrator Charles F. Stanton said in an address before the statewide Aviation Forum at Dallas.

Number of new airports to be built after the war is variously estimated at 1,000, Stanton said, adding that each new field might be expected to require a number of trained personnel, and expansion of existing ports will require large numbers.

Airport management undoubtedly will become an extensive, established profession, in which courses will be offered by many schools.



PRINCETON GETS EXPERIMENTAL GYRO

An engine, which will be used to further research on rotary wing aircraft, has been presented to Princeton University's department of aeronautical engineering by Harry Princeton, Jr. (right), president of Princeton Tire and Rubber Co. In the rear cockpit is Dr. Harold W. Dreda, president of Princeton, taking his first ride. The craft was built at the Willow Grove, Pa., plant of G. & A. Aircraft, Inc., Princeton subsidiary.

"Drivurselfs" Eye Plane Rental Field

Association president urges coordination of air, ground units.

The much discussed entry of "drivurself" automotive companies into the airplane field is the subject of a report to the American Drivurself Association by Richard S. Rabie, its president.

Rabie advocates entry of the drivurself companies into the light plane rental field, with nationwide coordination between companies and between air and ground activities. He also recommends inclusion of airlines as an integral part of the program, with airlines being used for long-distance flights.

Drivurself light planes for off-airline flights, and drivurself automobiles at ground destinations. The association has 194 active members in 48 cities and 143 associate members in 81 cities.

For Licensed Pilots Only—The report, prepared with cooperation from lightplane manufacturers, advocates restriction at first to the rental of lightplanes to licensed pilots, with merchandising of air mileage, maintenance and operations following lines already established for ground operations. Cuts would be based on flight

time, with built-in flight time equipment, and with minimum hour provisions set both in all instances.

In the 32-page study, the Drivurself Association members said that hundreds of thousands of pilots will want to fly, but will not be able to afford personal planes while operating costs per year run from 48 to 58 percent of the original investment. Rabie estimates that the drivurself planes would be used from 1,800 to 2,500 hours a year, compared with estimated private plane utility of 190 hours a year.

Example—Under Rabie's plan, the drivurself interests also would become merchandisers of airline travel. He suggests the following: A New Yorker wishing to make a trip to Manchester, N. H., would go to the A.D.A. office in New York, be sent by commercial airplane to Boston, supplied a drivurself plane there for the trip to Manchester and a drivurself automobile in Manchester.

He suggests that concerned companies would find this service more economical than maintaining their own fleet of planes.

Rabie says that flight instructors be part of the organizations, and that every new customer be required to take a check flight with the instructor.



AUTOMOTIVE AND AVIATION PARTS MANUFACTURERS BOARD MEETS

Photo shows members of the directors of the Automotive and Aviation Parts Manufacturers, Inc., at a luncheon meeting in Detroit. Left to right are: F. C. Casaday, vice-president; J. L. Migne, secretary-treasurer; G. A. Shaffelberg, A. G. Dreje, Neil A.

Moore, Frank Krieger, general manager; C. C. Carlson, president; John Avera, Hugh H. C. Wood; C. J. Deha W. C. Williams, Byron A. Fox, William F. Rockwell and P. Ferguson. Arden W. LeFevre and W. D. Robinson, also directors, were not present.

Aviation Gas Rationing Expected In Move to Increase Auto Fuel

OPA reported under heavy pressure from motoring public to restrict flow of gasoline to private flying and taxi service.

Aviation gasoline almost certainly will be rationed within the next few weeks. Office of Price Administration says it is under increasing pressure from the motoring public to restrict the flow of fuel to private flying and taxi services.

OPA has preliminary information from the Petroleum Administrator for War that the industry can make more automobile gasoline if it makes less 50-60 aviation fuel. If PWA makes a public statement to that effect, OPA will be on solid ground for any order curtailing fuel for non-scheduled air operations.

NATA, the Aero Chamber, NASAA, NAA, CAA and other groups representing the interests of personal and fixed base operators have sat in recent meetings with OPA gas rationing officials, but reached no conclusions. OPA

spokesmen said. They have heard no arguments by opponents to aircraft fuel rationing which they would feel justified in offering to the motoring public.

Probable Solution.—Most probable final solution is that the Civil Aeronautics administrator will be authorized to certify those eligible to receive aviation gas, and to specify how much is required by the various power ratings. Light-plane groups, of course, would like to have CAA take over the rationing of aviation gasoline, but the chances of such a move are negligible.

As far as can be learned, OPA spokesmen said, lightplane flying is the only motorized activity in this country which is not restricted in fuel supplies—outside the military, and essential services such as the airlines. There is a definite and fragile limit on motor boats,

lower mowers, and the like. Supplies of farm equipment fuels are controlled by the Department of Agriculture.

No Real Rationing.—At present, OPA explains, there is no real rationing on lightplane fuel. Local ration boards distribute "R" coupons, worth five gallons each. But generally speaking any aircraft owner applicant can get all the "R" coupons he asks for. The boards have no instructions to limit the distribution of these coupons for aviation. Since there are 5,000 of these local boards, and since OPA cannot keep an eye on all of them, undoubtedly applicants get different treatment in different localities.

Aviation groups contend that 50-60 octane gasoline cannot be stored and therefore there is no reason why they shouldn't be allowed to use it. OPA's reply is that there are as yet no restrictions and they can go ahead and use what there is.

Diversions Believed Negligible.—OPA has heard of aviation gasoline being diverted to use by automobiles, but has no specific evidence, and it does not believe the practice, if it exists, is very extensive.

National Aviation Trades Association says it is advised that OPA intends to place the following restrictions on airplanes: 40-60 hp., 5 gallons per hour; 55-65 hp., 7 gph.; 50-120 hp., 9 gph.; 145-160 hp., 12 gph.; 200-250 hp., 15 gph.; 300-400 hp., 20 gph.; 400-600 hp., 25 gph.; 600-800 hp., 30 gph.; 800-1000 hp., 35 gph.; 1100 hp., 40 gph.; 1100-1200 hp., 55 gph.

NATA urges all interested parties to keep letters of complaint going in to OPA if they hope to avoid rationing. OPA says it is getting them in large numbers, some from Congressmen through whom protests have been made.

Airport Executives To Meet in Chicago

The extent to which municipalities can help private firms will be one of the principal subjects of discussion at the national meeting of the American Association of Airport Executives in Chicago, July 10-12.

The organization, first since 1943, will include for the first time an "American airport forum." Sessions will be held at the Sherman Hotel.

THE AIR WAR

COMMENTARY

AAF Engineers Play Vital Role In Airborne Tactical Operations

Canal procedure planned in Washington and used in central Burma, actually got its first test on a small scale in Loe and Salween campaign.

While the brilliant airborne "raid" operations in Central Burma were being planned in Washington last summer, another surprise party for the Japs was actually being worked out in New Guinea. Owing to particularly limited equipment and facilities, the Pigeon campaign, ending with the capture of Buna and Gona in January, 1943, had strung along for six months. Last summer in less than that many weeks the more important bases of Salween and Loe were taken.

In the drive to clear the enemy from the entire northern coast of New Guinea, new fighter strips were constructed inland from Loe. One of which was the staging area for the striking force which destroyed over 300 enemy aircraft in the Wewak area during one week in August. From this same base the Troop Carrier Unit of the Fifth Air Force landed 1,500 fully equipped paratroops at Nadzab in the Markham Valley behind the

Jap position in Loe, which was cut off from each side and from the sea by an effective air blockade.

Airborne Engineers Arrive.—Within a few days, two battalions of aviation engineers were seen in, with the following equipment: Air compressors with saws, tanks, pumps and drills; light tractors with bulldozers; graders, rollers, scrapers, rollers, cut welding and cutting equipment; electric lighting sets for night repairs and air-strip marking, etc.

A few days after the completion of new airfields in the Markham Valley, Loe was ours. Over again the new lesson was underscored. Airborne operations afford a maximum use of that all-important military advantage, surprise. And another: Air power begins on the ground.

Air Commandos in Burma.—The all-air invasion of Central Burma was a masterpiece of daring planning and skillful accomplishment. Leader of the Air Commandos is

Col. Philip Cochran ("Flip Cochran" of "Terry and the Pirates") and his deputy is John B. ("Johnny") Alcock. Close friends since pilot-training days, they were widely separated during the first year and a half of the war. Their outfit provided the wings, General Wingate's jungle-war troops made up the ground striking force, and the aviation engineers, by providing landing-strips with breathing-taking speed, guaranteed that the invading force would be fed, supplied and debarked by air power alone.

The air equipment is notable for its variety, including Douglas Skyraiders (C-47), CG-4 gliders, Fairchild utility cargo planes (UC-64), Valiant liaison planes (L-8), adapted Stinson 100's, new, heavily armed Mitchell attack-bombers (B-25C), and Mustang (P-51) fighters, the latter also functioning as fast, powerful fighter-bombers, capable of carrying a 1,000-lb bomb under each wing.

Chiefs Land on "Broadway."—General Wingate had selected two selected landing spots some 150 miles behind the Jap lines in the very center of enemy-occupied Burma, near Kalda. This was near the Irrawaddy River and outside the main railroad about half way between the important bases of Myitkyna and Mandalay. These fields were characteristically nicknamed Piccadilly and Broadway. At the last minute the plan was changed and all the planes were sent to Broadway, being towed by C-47's over the 1,000-foot Chin Hills and meeting in with only moonlight to guide them.



Air Commandos Move Into Burma: Every item of equipment, including Army motor and bulldozers, was carried in by airplane as the First Air Commando Force moved up. At the landing base for the invasion, the reconnaissance unit objected to his first

air trip, but he made it. In the second photo, gliders of the force hauling made a night landing at "Broadway"—name for the rendezvous—prepare for the forward air movement, clearing the invasion field for the awaiting troop transports.



WICHITA'S PROPOSED CITY AIRPARKS:

Map of Wichita, showing the city's airport sites and their relative distances from the downtown and residential districts. One site adjoins the downtown district and two others are near busy Douglas Ave. Upper site would serve the industrial district and two others residential.

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"Briefing" for Burma Landings: The late Maj. Gen. O. C. Wingate (in helmet) is shown briefing American and British officers for the glider invasion behind Japanese lines in Burma. At right of map is Col. Philip J. Cochran, AAF.

Broadway won't so smooth on the ground as it had looked from the air, and there were a few cracks-up.

However, some of the bulldozers and other heavy pieces of equipment (some weighing over 2 tons) were safely landed, and the aviation engineers went straight to work constructing an airstrip for the troop-carrying C-47's due in on the following night. They had to dynamite a tree in the center of the field, drag off logs and crippled gliders and fill in several water-buffalo bogs. By 6 o'clock in the morning they began grading a landing strip, and by noon had one ready for the L-5's which were sent in to evacuate injured Americans and British troops.

Runway in a Day: By evening they had completed a much longer and wider runway, and by 7:30 the first of a dozen Skyraiders called in, piloted by Brig. Gen. Clegg, chief of the Troop Carrier Command, 3d Tactical Air Force. Just 32 seconds later, the second C-47 arrived, followed by the third in 36 seconds.

On one occasion alone six gliders were landed, unloaded and loaded back to India in 20 minutes. From Northwest India they were taken off every two minutes for Broadway, with 20-minute intervals between each flight of six. Here was a shuttle service with a jeepcase, and a Jap fighter

following night a runway was ready on which the first C-47 landed ten minutes after its completion. British assault troops kept on coming in all through that night and the next two days, leaving for an advanced objective on the third night.

The next morning Jap bombers smashed up the vacated runway. The Americans troops also, with their equipment, were by that time in another spot sitting up another strip, safer to move than the first. When he stops to consider what the boys have been doing, Cochran no doubt still feels, as he did after experience of fighter pilot leadership in North Africa, that they are "anatomically wonderful."

NARRATOR

Gen. Usher Honored

For "rare initiative and judgment" in development of a tactical doctrine for the use of gliders in combat and transport air traffic, Brig. Gen. George L. Usher, deputy commander of the 13th Air Force, received the Legion of Merit. General Usher was given his decorations by Maj. Gen. Maxwell E. Murray, commanding general of a forward zone island base in the South Pacific.



FOAMITE SAVES BURNING FORTRESS:

Behind what looks like a blizzard in a flying Fortress which has been assailed from burning by Foamite, a chemical sprayed by a B-24. The fighting crash crew at an 8th Air Force base in England. The plane was hit by Japs during an attack on a North end zone. An engine and part of a wing were set afire. Gas flames lit the ship to the point that the pilot, Lt. Col. Howard T. Kishner, couldn't see the instrument panel but he brought the B-17 home and the fire-fighters saved it.

PERSONNEL

L. L. Deane has retired as president of Midwest Aircraft Products, Inc., Dayton, Ohio. He will be replaced by M. M. Cohen, who was vice-president in charge of engineering. A. M. Page, formerly secretary-treasurer, has been named vice-president in charge of sales.

Sam M. Taylor has been named district manager at Dallas for Bonair Airways. Prior to his appointment,



Taylor

Taylor, a Texan, had several years of service with Bonair at both Kansas City and Dallas.

Howard B. Dow, vice-president of Pan American Airways, is replacing Evan E. Young, vice-president, who has been in administrative charge of Latin-American routes. Young is retiring after 15 years with Pan American, during which time he saw the airline develop from a 2,000-mile network into a system of 48,000 miles. Prior to joining Pan American, Young was with the State Department. There was previous of the New York Stock Exchange for two terms and was associated with stock companies until he joined Pan American in 1943.

Albert Tolson, former personnel manager of the North and South Manufacturing Co., has joined the Kellogg Corp. as personnel relations manager in the industrial relations division.

Carl Edwin Jones, acting AAF resident representative at the Louisville division of Consolidated Value Aircraft Corp., has been appointed resident representative. One Theodore Argentiello, assistant AAF Oper-

ations officer, has been appointed assistant resident representative. He also will serve as operations officer.

John A. Stassen has been named head of plant engineering at Fibersystems, division of Kaiser Corp., Inc.

Edo Mottish has been named employment manager of United Air Lines' personnel department with headquarters in Chicago. Mottish, who will supervise employment of all new personnel, has been in that department at Chicago since 1940. Previously he was with United Air Lines at Omaha.

Alfred A. Aronow, consulting engineer of Salsar Aircraft Co., has been elected an associate fellow of the Institute of Aeronautical Sciences in recognition of his "pioneering work in the field of aircraft construction." "Combustion" is being used for light engine in the war and the same principle applies in automobiles and crews of civilian aircraft, according to Aronow.

Thomas C. Hill, controls design engineer at Glenn L. Martin Co., has been advanced to head a new consolidated controls-hydraulic design



GE ENGINEER HONORED:

Dr. S. A. Moss, General Electric consulting engineer, was presented with the New England Award for 1944 by H. C. Hamilton, left, president of the Engineering Societies of New England, Inc. The award was made for Dr. Moss' outstanding work on the development of the airplane turbo-propeller. He is a joint holder with the Army Air Forces of the 1940 Collier Aviation Trophy. Dr. Moss has 40 patents on superchargers, compressors and other mechanical devices.

group, Frederick E. Baker, formerly assistant chief engineer, outside water inspection, at Martin, has been named chief inspection, outside water inspection. In his new post he will head the inspection of submersible vessels in its class.

Leslie William H. Chubb, AAF, named as chief of the Bridge at Southern Air Corps at Chicago and as chief of the Air Line Modification Center at Memphis, Tenn.



AVIATION CORP. DIRECTORS MEET:

Directors of Aviation Corp. are pictured at their recent monthly meeting. Left to right, standing, are: Benjamin Warren, Ben C. Cawson, Walter Magrath; George Allen, Arthur M. Herrington, Carlton G. Fisher, Irving Harrower, and seated: Thomas O'Hara, Brig. Gen. Walter K. Weaver, Victor Roussell; William F. Wain, C. Coburn Darling, and Raymond E. Pratt.

S. E. McCaskey, of North American Aviation, Inc., has been assigned to the Traffic Division of Consolidated Vultee Aircraft Corp. as factory representative and has assumed responsibility for all matters concerning Douglas B-26's delivered at Tuscon.



ately had several years' experience in commercial art work.

Col. George T. Urban, chief of the supply division, Sacramento Air Field Command, McClellan Field, Calif., has been assigned and replaced by Capt. Col. Robert L. Green.

Capt. Leslie C. Stevens has been detached from duty in the Navy Department, Bureau of Aeronautics, Experimental and Development Branch of the Engineering Division.



LETTER WRITER FEYED:

Kenneth H. Merritt, right, general manager of public relations of Kentucky Express Agency, was awarded the Bartlett Service gold medal award for excellence in business letter writing from Gene Flack, first vice president of the Sales Executive Club of New York. The award was made for a letter mailed to 50,000 air transport prospects, and brought a 26.6 percent return. It offered business executives and shoppers a hand-book, How to Ship by Air Express During Wartime.

Dr. Donald H. H. Davenport is now director of basic research for the Curtiss-Wright Corp. Airplane division.



Davenport

vision, succeeding Barrie H. Watson, newly appointed general manager of Curtiss-Wright plant in St. Louis. Dr. Davenport was chief scientist of the U. S. Bureau of Labor Statistics and acting director of research for the Army Industrial College for which he will continue to act in an advisory capacity.

J. W. Cress, Consolidated Vultee Plant Wichita division, has been named chief of contracts. Cress was a consulting engineer with H. L. Thompson Co., and then joined Lockheed Aircraft Corp. as an engineer before going to Convair.

Personal changes in the engineering department of Pratt & Whitney Aircraft Division, East Hartford, Conn., include appointment of Alexander H. King from chief design engineer to chief engineer; Nikolai Bryson, formerly designer, and Lewis M. Frost, mechanical engineer, to design project engineers of the New England Group. In addition, Carl N. Fenn, Charles A. Marx and Chester K. Wells, all designers, were promoted to design project engineers in the Production Engine Group.

R. J. DeLacy has been promoted to subcontracting superintendent.



DeLacy has been employed by Convair during the last eight years and is a former Marine Corps flyer and graduate of the Pensacola flight school.

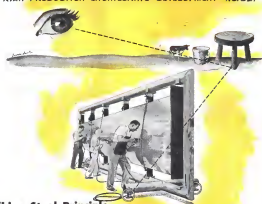
Mrs. Alexander Geyl has joined the public relations department of P e n n y l - v a n i a - C e n t r a l Airlines and will become associate editor of the PCA News, official employee publication. Before coming to Washington, she was executive secretary of the Toledo, Ohio, League of Women Voters. She attended Sweet Briar college and the University of Chicago.

Changes at United Air Lines include appointment of Capt. Ralph J. Johnson, veteran pilot, as assistant superintendent of Pacific flight operations. Captain Johnson was a Post Office air mail pilot in 1934 and joined United in 1944 after six years as pilot for Boeing Air Transport, a United predecessor. An executive on various pilot boards, he participated in organizing the AAF transport program at Tuscon, Ariz., during 1944. Victor J. Thimmon has been named supervisor of fabricating, having spent 13 years in the accounting department of the Chicago and North Western Railroad and the Texas Oil Co., at St. Paul.



WINS UAL CERTIFICATE:

Ward Canaday, president of Mills-Overland, receives a certificate of appreciation from Charles A. Smith, district traffic manager of United Air Lines at Toledo, for his contributions to airline progress. W. A. Patterson, president of United, is making awards to business and crew leaders who have supported United's applications for continued development. Canaday was instrumental in obtaining direct passenger-mail-carrier service into Washington, D. C., for United.



Milking Stool Principle solves JIG STABILIZATION

For years engineers endeavored to develop aircraft production jigs simple in construction, capable of being raised without the necessity of being aligned, and having inherent stability so as to assure complete accuracy throughout the entire period of use.

Knowing that any production fixture is no better than its base, Ryan liked the jig problem by using the engineering principle of the ordinary three-legged farm milking stool which remains rigid even though sitting on an uneven surface.

In similar manner, Ryan engineering and production methods are constantly solving the problems that daily harass or delay fast, economical production of warplanes and aircraft assemblies. The ingenuity and "know-how" that has made this great organization a production instrument to be reckoned with in war is your guarantee of skillful, economical postwar operation.



Ryan Aeronautical Company, San Diego — Member, Aircraft War Production Council, Inc.

THE PROBLEM

Production jigs with multiple supports, due to the fact as a base, inevitably get out of alignment. Such fixtures are difficult to work around, often have to be raised again in order to machine the completed assembly and require constant readjustment. A guarantee, under these conditions, would maintain accuracy seemed impossible.

THE SOLUTION

Ryan working jigs employed the simple engineering principle of the three-legged stool. The chair legs of which almost gave a rigid and unmovable of whether they had a level base or not. They insured, why any plane base (jig) which would be independent of the floor?

THE ADVANTAGE

An inherently stable jig which is shaped as ALL Ryan. Its design in production could be working with completely unassisted flight. No waste of expensive money manufacturing special foundations. One result of responding around center. Errors refer than away them. Total designers of color warplane designers have been given some 500,000,000 in Ryan's concept three-point jigs.

R-301

the ALUMINUM ALLOY that has both STRENGTH and RESILIENCY



R-301, the new REYNOLDS-developed ALUMINUM ALLOY, combines high strength and resiliency for the first time. Elasticity and thermal conductivity, so vitally important in absorbing kinetic energy without fracture, are inherent properties of this latest Reynolds triumph of metallurgy.

Tests with armor-piercing shells have proven that pound for pound R-301 surpasses former armor metals . . . and that's why new fighting planes are protected with this latest Reynolds aluminum alloy.

R-301 is the first high-strength aluminum alloy that has a hard core as well as a tough surface cladding . . . with a corrosion resistance almost as good as 99.5% aluminum! The cladding is more homogeneous in relation to the core, and this adds still other important advantages—higher bearing, shear, yield and fatigue strengths.

R-301 is more workable than previous high-strength aluminum alloys. From the initial die stampings right down to the final fabrication, R-301 speeds production and cuts spoilage.

R-301 is being produced in three tempers, suitable for a wide range of structural and industrial applications. Write for full information, Reynolds Metals Co., Aluminum and Parts Div., Louisville, Ky.



R-301 being tested for hardness. It has a tough cladding as well as a strong core . . . and a corrosion resistance almost as good as 99.5% aluminum.



REYNOLDS ALUMINUM

Plane Plants Readjust Schedules To Meet New Draft Requirements

Easing of rules to permit retention of 26 to 29 group—source of much supervisory personnel—for at least six months, is bright spot in picture.

Reaction of aircraft manufacturers to the new selective service regulations is generally favorable and industry leaders are readjusting their production schedules to meet the necessary changes.

The industry has been reconciled to the loss of larger numbers of men under 26, although there is still considerable feeling that the policy is not entirely sound when it involves taking a highly-trained technical man and putting him in the Army at this stage of his training.

Silver Lining—The new regulations have their bright spot, however, in the statement that men 26 through 29 probably will not be called for at least six months and perhaps longer. It is in this group that the aircraft industry has a large part of its supervisory personnel and the fact that these men are not to be called, at least for the time being, will aid greatly in meeting accelerated production schedules.

The fact that men 26 and over who are regularly employed in war jobs or in "support of the national health, safety or interest" have assurance they will not be called for "an indefinite period"

will help to stabilize the administrative structure of the industry just as the deferment of men in the 26-29 group stabilizes the supervisory structure.

Relief—Most industry executives do not see anything in the regulations which will provide them with additional employees, but since the principal concern has been in keeping the trained men already in the aircraft industry, and since most executives believe the new regulations will accomplish that, there is a general feeling of relief.

At the same time there have been some expressions that the orders, counter-orders, new orders and rescinding of orders by Selective Service from time to time have had a deleterious effect on public confidence.

Subject in Change—Maj. Gen. Lewis B. Hensley, director of Selective Service, in announcing the new regulations, emphasized that the new program, made possible by reduced draft demands, might be altered by the fortunes of war. He termed the new regulations "permanent—for today, anyway."

It was the commander in Washington that the new regulations

will stick unless the nation suffers unexpected reverses and it is the question, too, that men over 24 probably will not be called at all.

Depend on Invasion—The new regulations, like everything else promulgated by the government at this time, are dependent on invasion developments, and consequently there could be changes overnight.

The aircraft industry undoubtedly will have some experience through the provision that 4-27's and limited service registrants, regardless of age, who are in war or war-supporting jobs, can expect to remain out of the armed forces indefinitely.

Draft boards are given wide latitude in determining whether a man over 26 is contributing to the war effort, but in the case of aircraft workers, there can be no doubt, and at the same time it is easier for men in the 26-29 group to obtain the status to remain in civilian life.

Drop Tanks Raise Mariner Range 60%

New Martin device reported easily adaptable to all types of flying boats.

Development of a new droppable spouson fuel tank that can be used to increase the range of the PBM-3 Mariner by at least 60 percent has been announced by Glenn L. Martin Co., whose engineers say there is no appreciable effect on performance characteristics other than a two percent reduction in top speed.

The new device was designed by John B. Pivon of the engineering department, and is attached externally along the chines in the vicinity of the main step. It is used to overcome one of the main limiting factors of former auxiliary gasoline tanks by providing added planing areas to compensate for the weight of additional fuel.

Easily Adaptable—The tank is easily adaptable to all types of flying boats. For the PBM-3 Mariner, the Pivon spouson tanks are designed in three sections to facilitate handling and attachment, although an additional number of sections could be used for larger airplanes.

The forward sections are attached to the sides of the hull at the point where the bending gear is normally affixed with the remaining sections extending back

The Jap Cheater

MAYN an American fighter pilot has cheated death and the Jap on his tail because of a single word of warning shouted into a radio from another American fighter above him.

That word could never have been transmitted were it not for the aircraft radio. But neither could it have been heard above the interference of the high tension currents in the ignition system of the airplane which had not been shielded.

So work that began nearly a generation ago in research laboratories like those of Titeflex made possible radio-connection fighter tactics, bomber strategy, and the fast-lung operations of the Air Transport Command today.

But the triumph of the last twenty years

are of interest to Titeflex today chiefly in that they prepare the way for the research for the next generation of aircraft.

The problems of intense heat, extreme cold, apparent vibration, and tremendous wind resistance against which Titeflex must maintain continuous electrical shielding for currents of 10,000 volts—all these have been solved. But they are merely the stepping stones to the solutions of postwar aviation.

You are invited to consult our application engineers for any assistance in similar problems.

TITEFLEX, INC.
308 Frelinghuysen Avenue,
Newark 5, New Jersey.



New Droppable Fuel Tanks: During takeoff the new auxiliary spouson fuel tank developed by engineers of Glenn L. Martin Co., forms an extension of the planing area of the hull below. Artist's conception shows a PBM-3 Mariner equipped with the new device.





WING TAKES SHAPE IN CHRYSLER PLANT

A partly completed section of an aircraft wing is lifted from a big fixture by a former auto body hoist in the plant of the Detroit division of Chrysler Corp. The wing has completed the power-driven assembly line and now will be placed in a dolly for final fitting and, which will provide the wing with its gas tank and accessories compartments and ready it for delivery to an assembly point.

to a point (overhead) off the main shop. The tanks are so designed that the bottom conform to the bottom of the hull and form an extension of the plating area. They are attached to the sides of the hull mechanically, and can be jettisoned either mechanically or by means of a gas/bottle release mechanism.

Fairchild Trains Aerial Cameramen

More than 1,000 men and women of the armed forces' aerial photographic services have been taught proper maintenance and repair for their cameras in the two years since the opening of Fairchild Camera & Instrument Corp.'s school.

The intensive four weeks course covers operations and workings of specialized, precision built cameras.

Detailed instruction is stressed by the Army and Navy since after every flight the cameras must be thoroughly inspected, due to heavy moisture conditions resulting from high altitudes, and rough usage under tension.

Kaiser Sees Vast Post-War Air Growth

Steps down in Brewster president but remains interest in aviation.

Betty Kaiser stepped down last week as president of Brewster Aeronautical Corp., but indicated in a speech before CIO's United Steel Workers that his interest in airplanes is anything but lagging, envisaging 3,500 to 5,500 air contracts and sale of 50,000 personal planes in two years after the war.

Wages and Payroll Cut—The labor force and payroll was cut out-there, the labor force from 18,200 to 12,200.

Plane man-hours dropped from 37,000 to 9,900.

Departments were shifted around for increased efficiency, some of the sections in Long Island City being shifted to Johnsville and geared to the production assembly line, which itself was restructured and the number of working stations increased from a mere 16 to 114. Disincentives were examined and revised on a realistic production basis.

Ahead of Schedule—Now that the plant is 25 percent ahead of

schedule on its Navy contracts, Kaiser will resign and James Work again will take over as chairman of the board. Work and the Miranda group have been given approval by the voting trustees appointed by the Navy, and a slate of officers backed by the group of shares is installed.

Frederic Lockwood, who had been secretary and assistant general counsel, will become president. Lockwood came to Brewster in the Kaiser shills. James Mitchell, Kaiser general manager of the plant, remains in that capacity.

Board Changes—Three other Kaiser men were scheduled for election to the board, Dan C. Pencock, Jr., Lamont F. Henshaw and Henry F. Martin. Others are Zeno Rowland, now president, George C. Westervelt, William Fulton Kurtz—all these installed as directors by the Navy in the reorganization; and William F. Harman, president of William Sellers & Co., and former vice-president of Baldwin Locomotive Works.

Kaiser and his group liked the production problems, but they are losing many aircraft specimens for the new management, among them Navy recognition demands of far-reaching competence. Brewster has been producing Corsair fighters, and the Navy has not yet indicated whether it will repay present contracts when they are completed, probably sometime this year.

Challenge

Announcement that the Canadian-built Douglas DC-4 transports will be powered with four Rolls-Royce Merlin engines was made in a statement by C.D. Howe, Minister and Supply Minister.

He read from a letter from Lord Beveridge in which the Beveridge said, "I imagine it is the Canadian-built DC-4 that will show its teeth to its American-built cousins across the border."

Douglas engineers undoubtedly will disagree with this statement, since it is well known that Douglas is planning to install larger engines for its DC-4.

Lord Beveridge expressed delight that Canada was going ahead with plans for construction and the hope that further progress in the building of civil aircraft in England can be made before long.

CAA Offers Plan to Liberalize Airworthiness Requirements

Program would permit manufacturers to turn out aircraft designed in most only tests provided for certain type planes.

As part of a plan for liberalization of aircraft requirements, manufacturers would be permitted to design aircraft according to the "player" special uses, under a new system offered by the Civil Aeronautics Administration. The plan is proposed with a view to making possible a more useful personal airplane without additional cost.

Airworthiness requirement changes, which have been widely discussed throughout the industry, are brought a step nearer by the CAA action, although the agency hopes to have comments from all interested before asking the Civil Aeronautics Board to revise the regulations.

Different Needs Cited—Fred M. Langer, CAA director of safety regulations, explained that, under the proposal the family airplane, for example, would not be required to meet the same stresses as a plane which will be subjected to acrobatics and the weight thus saved could be put into additional fuel, baggage, passenger capacity, instruments and other features.

Design categories which have been suggested by the CAA for industry discussion are acrobatic, training, general purpose, transport, and special purpose. At present, special requirements for transport planes are in effect, but all other classes of civil aircraft must be built to the same strength requirements.

Category System—"Increased knowledge of airplane design, plus an expanding market, makes a category system of airplane design requirements practical at this time," Langer said. "Under this plan, manufacturers need incorporate only those design features which are essential for the intended use, and thus can increase the overall efficiency of the design for that particular use."

He pointed out that it would still be possible to have a plane certified by CAA in more than one category. For example, an airplane meeting the training category requirements at a weight of 1,500 pounds could be used in general purpose operations carrying a higher weight, or in the acrobatic category at a reduced weight.

Requirements Rule—A group of leading aeronautical engineers, members of the airworthiness requirements committee of the Aeronautical Chamber of Commerce, initiated a program last month (AIRCRAFT NEWS Apr. 24) to change the present system of airworthiness requirements for all types of aircraft. They agreed there must be a clear-cut division between air carrier and non-air carrier planes.

The CAA proposal has been discussed informally with the Aeronautical Chamber, but the widest possible expression of opinion is desired by the CAA, since it is charged with assuring the safety of all aircraft.

Carrier Group Urged—The Chamber's airworthiness committee has suggested that an air carrier group be set up and divided into air carrier passenger, air carrier goods and air carrier special-purpose groups. In the non-air carrier group, the tentative categories suggested by the engineers include acrobatic, training or utility and normal or personal transport.

While the airworthiness requirements for air carrier planes will of necessity continue to be complex, it was the opinion of the Chamber committee that as far as the personal plane group is concerned, it can conform to a reasonably standard that the requirements be in the most simplified form.

Safety and Utility—Langer said the CAA is desirous of carrying out its safety function in a way that will promote the use of the airplane to the greatest degree.

Fast Mosquitos

A new trans-Atlantic speed record of six hours, 46 minutes from Labrador to the British Isles was recorded last week for a Chance-built Mosquito. The new mark was two hours and ten minutes lower than the last record made with a Liberator.

The record was set in a 3,200-mile flight made by two Mosquitos, both of which broke a 10-hour record. The second speedy fighter-bomber completed the run in seven hours and nine minutes. Total elapsed time of the fastest plane from Montreal to the British Isles—1,000 miles—was just a little more than ten hours.

constant with public safety. He said the CAA believes that their design categories is a step in this direction and invited comment.

The CAA proposals put acrobatic planes in the top strength class, with requirements emphasizing power plants satisfactory for at least short periods of inverted flight, and visibility for acrobatic flight.

Primary Maneuvers—Training planes are suggested as the second strength class, in cover maneuvers essential to primary training, such as stalls, chandelles, wing-overs, etc., but not abrupt acrobatics such as snap rolls.

In the general purpose category, CAA envisions that requirements will emphasize good controllability at the end, with strength increasing the same as in the transport category, since both types of operation avoid maneuvers which impose sharp stresses.

Aviation in the special purpose category, under the proposal, will be considered as separate cases.



FAIRCHILD'S NEW FORWARDER

The UC-42K, named model of the Forwarder, is now powered by the 260 hp Ranger engine and is coming off the Fairchild assembly line in quantity production for the Army Air Forces.



Miles become blocks ... by Commuter Bus?

Designs for proposed aircraft of the future center on three important developments—speed, load-carrying, and maneuverability. The Jet-propelled Plane exemplifies a development in speed. The huge Flying Wing may be tomorrow's freight carrier. The ideal in maneuverability—all-directional control including vertical landing for passenger pick-up—is emphasized in the Helicopter Bus shown in the Golden design.

Each of these developments presents an individual problem of power transmission and mechanics of control. To Fafnir will be assigned the task of engineering friction out of all turning points of engineering: into controls, rotors, engines and other moving parts, the maximum of sensitivity, efficiency and dependability through performance-tested ball bearings.

This task will be a Fafnir responsibility as a logical continuation of fifteen years of the closest possible cooperation with aeronautical engineers during which period the amazing accomplishments in aviation have taken place. Even today, Fafnir engineers are cooperating in designs for aircraft which will be "everyday" transportation in ten years. The Fafnir Bearing Co., New Britain, Connecticut.

FAFNIR

BALL BEARINGS for Aircraft



The Makers of Fafnir Aircraft Ball Bearings Present Nowhere There is a Pre-visualization of Future Flight Possibilities with Models and Settings Created by Norman Bel Geddes and Company

The geography of living *will* radically change, with cities shrinking to city-block size, via the Helicopter Commuting Bus. Compared with today's bus, carrying thousands, tomorrow's commuter may route two to five times farther from his bedroom. The future 40-passenger "Capitol Bus" could park itself for inter-assembly stops up to 100 miles, since it could land efficiently on city squares and village greens, requiring space little larger than itself.



Automatic Pilot for CG-13A Glider: Successful tests have been completed on installation of automatic pilot as the CG-13A glider built by Northwestern Aeronautical Corp. Photos show (left) gyroscopic mechanism in instrument panel, with Servo unit (center) hung just below, and the main propeller (right) mounted outside the fuselage which serves to operate the auto-pilot mechanism.

Automatic Pilots For Gliders Tested

Installation to be made on all CG-13A craft built by Northwestern Aeronautical Corp.

Tests just completed at Minneapolis, showing an automatic pilot on the big CG-13A glider built by the Northwestern Aeronautical Corp., have produced satisfactory results, according to technicians who conducted the experiments.

As a result of the installation, all such gliders built by the company will have these devices. The new installation will enable glider pilots to set the auto-pilot so that the glider will remain in any given position relative to the township. To avoid the streamers from the township, a single glider usually is pulled at an altitude slightly above the township craft. When two gliders are towed they maintain positions above and to each side of the towplane.

Gyroscopic Gyroscopic. The installation includes a gyroscopic system attached to the instrument panel with the Servo unit of the auto-pilot just below. The entire mechanism is powered by a small propeller mounted outside the fuselage. The gyroscopic directs the operation of the Servo unit connected to the glider controls.

For takeoffs and landings, the glider pilot uses manual controls but on reaching the desired altitude and after the glider has been trimmed, the auto-pilot may be cut in to keep it on the proper position relative to the towplane.

Developed by AAF Laboratory. The assembly for the mechanism was developed by the Aircraft Laboratory engineering division, Glider Branch, USAAF. The test flight was made with Capt. A. Stelzer, as pilot, Flight Officer C. F. Barrow, co-pilot, in the glider, and Col. Wynn Price, in charge of glider projects at Wright Field, as pilot of the towplane and Flight Officer A. L. Collins, co-pilot. The first automatic pilot was based on Northwestern's CG-13A following preliminary tests at Wright Field.

P-51 Record Shows Plane's Real Range

The record-breaking haul of two North American P-51 Mustangs across the United States disclosed that the range of the Mustang is far beyond the officially noted "over 500 miles." The plane piloted by Capt. Carl Carter flew non-stop over the Great Circle course from Los Angeles to New York—a total of 2,464 miles. It was a stock model, just off the assembly line.

It is understood the Army decided the same time before releasing the fact that one of the flights had been non-stop, revealing the tremendous Mustang range.

Flew 435 mph.—Col. Carl A. Peterson, Gen. Henry H. Arnold's personal pilot who was flying the first P-51, which stopped at Kansas City, disclosed that he flew the ship at 430 miles an hour at times on the trip, which was made with-

out benefit of high tail winds originally anticipated.

Official tests recorded by John P. V. Heilmann, chief time for the National Aeronautics Association, were 8:39:09 for Peterson's plane—the one that stopped for six minutes, 35 seconds at Kansas City and flew 2,470 miles—and 8:09:38 for Carter's non-stop plane. The planes averaged 30 miles an hour. Both ships left Inglewood Field at 9 A.M.

Most "Constitutional." Mark—The new records were being up less than a month after Lockheed's giant Constellation unofficially broke all transcontinental records with a six-day-and-five-hour flight from Burbank to Washington—a distance of 3,906 miles. The previous official work had been Howard Hughes' Burbank-New York record of 7:18:35 over a distance of 2,445 miles.

Flew First Army "Mustang."—Neither pilot is a stranger to the P-51, Peterson having flown the first Army acceptance test of the Mustang in 1940 and Carter being project engineer for the P-51, attached to the Materiel Command at Wright Field.

The plane has been developed since 1940 and is considered by many pilots to be the top overall fighter of the war. It has been used, with Thunderbolt, in providing top cover for the long-range bomber missions into Germany.

Flew 435 mph.—Col. Carl A. Peterson, Gen. Henry H. Arnold's personal pilot who was flying the first P-51, which stopped at Kansas City, disclosed that he flew the ship at 430 miles an hour at times on the trip, which was made with-

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TRANSPORT

Northwest Tax Decision Seen As Vital Problem Facing Airlines

Series complications predicted as result of Supreme Court ruling upholding right of Minnesota to levy on all of company's air fleet because planes are based in that state.

By MERLIN MICKEL

A taxation problem menacing the air transport industry may prove financial difficulties unless Congress provides a solution was posed last week by the U. S. Supreme Court decision in the Northwest Airlines case.

By the margin of 5 to 4, the court decided Minnesota has the right to tax all of Northwest's fleet because the planes are based in that state. In effect, it established the fact that an airline's home state would have the right to tax the fleet, property not continuously out of the state for all the tax year.

Clarification Sought.—The minority contended that for Minnesota to tax Northwest's fleet for its full value would be a "manifestly unreasonable burden" on an airline company, "since other states presumably would have the right to tax the portion of the fleet operating within their borders."

But, the justices who dissented agreed with the majority that the time has come for legislation to control the modified situation. The court pointed out the matter of constitutional authority, and the majority opinion by Justice Frankfurter pointed out that inability of any part of Northwest's fleet by any other state "is not now before us."

Complications.—The Air Transport Association, concerned with the decision's multiple taxation implications, commented unofficially that either of the two views could lead to disastrous complications.

The majority opinion, an ATA source pointed out, might mean multiple taxation by the states, through a full personal property assessment at the home base such as Minnesota levied, plus a further tax by individual states where a line operates. A quick check showed that this would mean 22

state taxes for American Airlines and 17 for Eastern Air Lines.

Apparentment Urged.—The second, or minority view, that taxes should be apportioned among the states in which a line has routes, was looked upon as better from the standpoint of the airlines, though perhaps tougher on the states. The apportionment method might come closer to a solution, but even so that basis certainly might be expected, since each state would have its own tax laws and system, possibly at variance with that of any neighbor.

One observer conversant with the law commented that the situation has "thousands of possibilities, all bad." States where there is no "home port" for an airline, for example, might be tempted to stress assessment against opera-

tions within their borders to offset the disadvantage of not having headquarters for tax purposes. As its extreme, a situation could arise where the state would adopt a "crack down" taxation policy where the airlines are concerned.

CAB Members' Attitude.—Indication of the gravity of the problem was confirmed from the two Civil Aeronautics Board members willing to be quoted. Harlow Branch declared that unless the federal government steps into the picture to regulate taxation, it is conceivable that the airlines will be so damaged economically by taxes that a return of subsidies may be necessary. Oswald Ryan observed, after a study of the options in the case, that they strongly suggest that Congress can supply the answer to a problem, which, unless it is taken under control, may create a situation which many feel will make it impossible for our airlines to survive.

Officials of Northwest Airlines made no comment on the decision, but there was some expectation that their counsel might ask for reconsideration of the case.

Precedent.—The decision set a precedent, creating basis for a type of taxation other interstate carriers do not have to face. The court upheld thereby a 4-to-3 decision of the Minnesota Supreme Court of Dec. 18, 1945. That Northwest must pay personal property taxes and penalties totaling \$16,861 to Ramsey County—before the court



CLARKSBURG AIRPORT NAMED:

The new Clarksburg, W. Va., airport has been named Reservoir Airport in honor of M. L. Reservoir (senior), 74, Pittsburgh oil man, who was a pioneer supporter of aviation and who was born only a mile from the airport site. With him are Jennings Randolph, member of Congress and chairman of the Amazon Commission of the West Virginia Planning Board, on the left, and Charles B. Donahue, Director of airports for the Civil Aeronautics Administration.

for months, the case had been working slowly for a possible lead to solution of the tax problems of Transcontinental Airlines.

Southwest has routes between Chicago and the Pacific Coast and into Canada. When the Minnesota court first handed down its decision, NWA operated in Minnesota, Illinois, North Dakota, Montana, Oregon, Wisconsin and Washington.

Airline's Stand—The Airline had contended that Minnesota could tax only that part of its air fleet used within the state. State officials argued, on the view upheld by the U. S. Supreme Court, that the tax was proper because the company was domiciled in the state.

J. A. A. Sorengrist, Minnesota attorney general, won the decision as "very broad and significant." The ruling, he said, "determines the rights of a domiciliary state to tax domestic corporations when engaged in interstate commerce." He sees the decision as a victory for the state and Ramsey County, since both will benefit from the tax money and it establishes for the first time a basis for taxing aircraft.

Legislative Move Expected—Some Minnesota state officials predict that as a result of the Supreme Court decision the next Minnesota State Legislature may consider whether it is equitable to tax such property when domiciled in the state or whether it should be done on a gross earnings basis.

Longer than Justice Frankfurter's opinion, in which Justices Hugo Black, Douglas and Murphy concurred, was the dissent by Chief Justice Stone, in which Justices Roberts, Reed and Rutledge joined. Justices Black and Jackson wrote separate opinions concurring with Frankfurter.

Northern Route Open

Regularly scheduled mail, passenger and express service to England via the North Atlantic route has been resumed by Pan American Airways. The 3,668-mile route is flown in 34 hours, including stops at Shadish, N. B., and Detroit, N. Y.

The company said that since scheduled service was started five years ago, \$3,800,000 in mail has been carried on service, has 3,000 crossings. The northern route is used by PAA only in summer.

American Granted San Antonio Stop

CAB ruling allows third line connecting Texas airports with Mexico City.

A third-air service linking San Antonio, Texas, with Mexico City will soon be provided in accordance with a Civil Aeronautics Board decision which permits American Airlines to add the Texas city as an intermediate point on flights over PAM 36 between Fort Worth-Dallas and Mexico.

American will be able to offer single carrier one-place service not now available. The present service involves connections through Brantford and Cuernavaca de Avicacion at Laredo and between El Paso and San Antonio at Brownsville.

25 Miles Off Route—American has asked to serve San Antonio, which is only 25 miles off its present route, in order to increase plane utilization and to improve international airmail service.



The new stop will eliminate the need to carry enough fuel for the long non-stop Fort Worth-Mexico City flight, thereby increasing the capacity of American's planes for passengers and cargo.

In addition, San Antonio will receive improved service to points in the U. S. served by American. **FAL Objects**—Eastern Air Lines, an intervenor, objected to the fact that the San Antonio stop gives American a route to Washington 20 miles shorter than Eastern's. The possibility of "wrecky-ground" service between San Antonio and Fort Worth was ruled out under a condition imposed by the CAB which permits service to San Antonio only on flights originating or terminating at Mexico City or Fort Worth-Dallas or points north.

American is now flying to Mexico on a temporary certificate. The application to make this authorization permanent is considered with the Latin-American cases now pending before the CAB.

UAL to Ask Permit For Anchorage Line

United Air Lines has announced its intention to ask the Civil Aeronautics Board for a 1,600-mile route linking Seattle with Anchorage, Alaska. United officials predicted high speed post-war equipment would bring Anchorage within 10 hours of New York over the United system.

United also announced that Lamas, its Mexican subsidiary, will soon apply to the CAB for routes from Mexico to Los Angeles, via Cancun, Mazan, and Nogales and Phoenix, Ariz.

W. T. Miller Dies

Fallen as a right pilot, and an authority on aeronautical problems is the South Pacific, William Thomas Miller, 69, chief of the Air Carrier Division of the Civil Aeronautics Administration, died in Washington last week.

Pilot in World War—After serving as a Royal aviator in the last war, Miller resigned as a lieutenant in 1922. He joined the Bureau of Air Commerce in 1923, remaining with that body when it became the CAA. He was a referee of Michigan. His knowledge of the South Pacific came as a result of an aeronautical survey he made there from 1938 to 1937.

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Court Upholds CAB's Civil Air Powers

Nevada bench also recognizes authority of CAA to enforce regulations.

In the first judicial proceeding involving a test of the Civil Aeronautics Board's regulatory powers over civil aviation, the U. S. District Court of Nevada upholds the Board's authority to make Civil Air Regulations which are applicable to all civil aircraft flying within or between states and on or off Federal Airways.

The decision likewise recognizes the power of the Civil Aeronautics Authority to enforce such regulations.

Issuance Required.—The particular rule in question in the case requires CAA licensing of all planes and pilots flying in the United States.

The case grew out of a flight made by Andrew D. Drumm, an unlicensed pilot, who flew an unlicensed aircraft between Nevada and California in 1943 in violation of the Civil Air Regulations.

Cites CAB Ruling.—Judge Frank H. Sierross, who wrote the decision, cites a CAB finding of 1941 which states in part that "the operations of unlicensed aircraft anywhere in the navigable air space overlying the United States constitute a hazard to interstate, overseas and foreign air commerce."

The regulation which Drumm violated was made following this finding.

Defense.—Drumm held that the Civil Air Regulations did not apply to him, inasmuch as he did not use any federal facilities in his flight. He said he had been flying over twenty years without a pilot's license.

He was fined \$2,500 and enjoined from operating a plane until he had secured a license.

Northwest May Add Chicago-Seattle Hop

Also plans to expand service to Twin Cities with planes returned by Army.

Northwest Airlines, completing a reconnaissance job on the second of two DC-3's recently returned by the Army, expects to add a flight between Chicago and Seattle via Twin Cities and expand its service between Chicago and the Twin Cities.

First of the ships went into use May 10. The second will follow about June 1. They are the second and third returned to Northwest Airlines since the U. S. Army took over the airline planes in 1942.

Army Pays Costs.—As an outgrowth on leased planes returned, the Army is paying conversion costs, estimated at about \$33,000 per ship, to bring the ships to their pre-takeover standard. Northwest is standing the expense of extra modifications and new improvements.

First DC-3 chartered over for passenger service required 38 days' work by 225 engineering and maintenance employees.

AAA Asks Permits To Expand Routes

Company seeks expansion plans on fifth anniversary of operation.

All American Aviation, Inc., on its fifth anniversary, said the company has filed its plans to file applications with CAA to add 6,168 miles to its routes and extend its services to 249 additional communities, and in addition applications are on file which would expand the service to 1,500 communities in 28 states and add 25,000 miles in new airline routes.

The air-mail pickup device, which originally was designed to expedite passenger commerce, has been developed and adapted for military purposes. With the exception of fighter planes, most types of aircraft used by the AAF are equipped with a pickup and to pick up troop-carrying gliders or military cargo. The big pickup has played an important role in airborne operations on at least two fronts.

Pioneered Pickup System.—The company pioneered the development of the system by which air mail and air express are picked up and delivered by an airplane in flight.

Halsey R. Busley, president of All American Aviation, recalled that five years ago this month, air mail pickup service was started by his company over two experimental routes, established by the Post Office Department to test the practicability of this new facility in providing direct air mail

service to smaller communities.

Routes Expanded.—The experimental routes covered 56 cities and towns, most of which were in the mountainous region of Pennsylvania and West Virginia. In five years, All American's operations have expanded until they now cover 347 routes touching 118 communities.

Busley said pickup planes have flown 3,200,000 miles and made a quarter of a million pickups without serious accident to personnel or cargo.

Meeting To Discuss Cadet Training

Top AAF Training Command officers and operations of Army aircraft flying schools, meeting May 24 and 25 in New Orleans, will discuss future plans for cadet training.

At the same time the semi-annual meeting of the Aeronautical Training Society is being held. Speakers will include: Maj. Gen. Gerald C. Brant of the Central Training Command; Maj. Gen. Ralph F. Conners of the Western Training Command; Maj. Gen. William G. Butler of the Eastern Training Command; Col. T. J. Dwyer, deputy to the Deputy Chief of Air Staff, Training; Brig. Gen. W. W. Welch, Deputy Chief of Staff of the Training Command; Brig. Gen. L. S. Smith, acting commanding general at Randolph Field; Lt. Col. Joseph Edgerton, Thomas Beck, president of Crowell Publishing Co.; Lt. Col. Earle L. Johnson, national commander of the Civil Air Patrol; and J. W. Goetz, ATA president.

Air Traffic Parley

The annual air traffic conference will meet again this year in Denver, with Continental, Boeing, Inland and United Air Lines as joint hosts. Business sessions will be held at the Brown Palace Hotel in Denver July 11-15. Later the airline men will visit the Phoenix Valley Ranch near Grand Lake.

L. Welch Fugate, chairman of the Civil Aeronautics Board, will be in Denver during the session. Paul J. Carmichael, Continental general traffic manager, said in announcing details. Officers of the conference, a division of the Air Transport Association, are Charles E. Beard, Brant, president, Nels Fry, United, vice-president, and M. F. Redfern, ATA, secretary.



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NWA Prepares Returned Plane for Commercial Service.—Pictures show one of many steps in conversion to airline use of one of the DC-3's returned to Northwest Airlines by the Army. In one, maintenance



men are installing seats. The other shows an earlier operation in which the ship was stripped to the bare metal before conversion work began on the plane's interior.

Clearing Away Confusion

UNFORTUNATE MISINTERPRETATION and unwarmed reporting of the recent hearings before the House's select committee on post-war military policy threaten to do lasting damage to that group, and to the nation itself. Creation and operation in wartime of a Congressional committee to study post-war problems is unique in this country. The president must not be allowed to fail as a result of public misunderstanding.

The committee, under the leadership of Rep. Woodruff, is charged with investigating and reporting to the House. It is a fact-finding body to outline post-war programs. It has no legislative power, nor has it any intention of seeking such power. It has no deadlines and needs reach no hasty conclusions. It is unlikely that its work will be completed at this session, and probably it must seek new life in the next Congress.

All of these facts have been reported by *Aviation News* but they must be repeated in light of the misconceptions that have arisen.

As an example of the sometimes stupid interpretations placed on the committee's work, it was reported widely last week that neither of the armed services has been "shelved" until fall and might not be re-created until after the war.

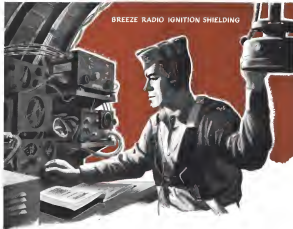
If there had been any administration plan for an early merger it is news to the committee. And obviously, if such a plan had existed the committee could not have originated or directed legislation to implement it.

Whether Army witnesses were merely pro-aircraft since when the hearings on Army-Navy unification started or whether they misconstrued the intentions and powers of the committee is a moot point. But the first Army witnesses, by asking for quick decisions, started a string of explosions which will require painstaking rebuilding. It seems clear that some War Department spokesmen came into a post-war policy committee with plans they wished to launch as soon as the European phase of the war was over.

The Navy, faced with the greatest naval war in history, didn't look too closely at the committee's background and its reason for being. Annoyed by the wide publicity given the Army's demands for immediate action, it steamed in with its heaviest guns to forestall a quick decision. It spent its time attacking the Army's plan because its first interest is to win the Pacific war.

Thus, the committee learned little about what the Navy thought would be advantageous in a careful and intelligently planned unification after the war, and the public impression grew that the matter was more immediate than actually was the case. Hagging over details rather than a calm appraisal of broad principles resulted.

Other vital subjects are set for discussion shortly. The witnesses should be shown, in proper perspective, the nature and purposes of this committee, before they allow their statements to become emotional over details and personalities.



Friend or Foe?

Over Africa recently a flight of American bombers on their way to a target received radio instructions to change course and attack a different objective. Because of the clarity of reception, an alert operator was able to take a bearing on the signal—only to find that it was coming from the enemy. A call back to base brought out our fighters, who proceeded to the target and destroyed thirty out of forty-five Messerschmitts which were flying in search for the flight of American bombers.



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Breeding Distrust

IF THE GOVERNMENT months ago had issued a clear statement of its position with respect to post-war military aviation, agreed upon by both the legislative and executive branches, we would not have now the wild speculation over various utterances emanating from Britain.

Some aviation observers in the Senate suspect either that the British are among a class of diplomats who are at this country or that Assistant Secretary of State Berle, Jr., exceeded his authority during his recent post-war air conference with Lord Beaverbrook. They doubt the latter. So does the news.

On May 19 the sorry Beaverbrook told Lords that Britain had accepted an American proposal that there be freedom to fly, land, and to discharge and pick up passengers and mail anywhere in the world. The next day there was a report that Beaverbrook had told C. D. Howe, Canadian minister of maritimes and supply, that the U. S. accepted the principle of exclusive British right to embargo within the colonies and dominions.

The same day another report said Beaverbrook told Lords that bases leased to this country for destroyers could be used only for military purposes unless Britain should consent later to other uses. He added he hoped an international authority might control use of bases leased to the U. S. for military purposes.

These developments leashed off gossip in Congressional quarters over what actually happened at the Berlin-Beaverbrook post-war air talks. The Senate Aviation Subcommittee joined with the parent body, the Commerce Committee, in asking Secretary Hull for a formal statement as to whether Berle coached any binding agreements with the British. Word was permitted to go out of the Aviation Committee that Berle had said his talks were purely exploratory. He has never told the committee, it is known, that this government favors more than freedom of commercial transit, or the right to fly with permission to land for technical purposes. Berle phoned Chairman Clark of the Aviation Committee that this was the position he had taken in London.

AVIATION NEWS is informed on the highest authority that only the most preliminary discussions were undertaken. It is also understood that Secretary Hull's reply to the committee will confirm this. Further action was delayed as this edition closed because an official transcript of Beaverbrook's speech had not yet reached Washington.

It was conceded that the issue probably can be settled quickly but sufficient damage has already been done to indicate the danger of continuing to keep all phases of the development of international air policy under tight secrecy.

ROBERT H. WOOD



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